PRODUCT SPECIFICATION

Modi Lastek 231

Hardfacing electrodes, tool steel

GENERAL DESCRIPTION

Special electrode for repair and construction of cutting tools.
The deposited metal has exceptional cutting characteristics. It doesn't need to be hardened and is ready for use.
Substantial savings are obtained by repairing expensive dies and cutting tools. New cutting tools can be made by surfacing 700 N/mm² steel with Lastek 231.
Very good welding qualities, stable and consistent arc. Perfectly suited for surfacing narrow pieces.

APPLICATIONS

Twist drills, reamers, milling cutters, dies, moulds, knives for metal, leather, wood, synthetic material, paper, etc...
Pneumatic tools.
Construction of new dies and chisels.
Repair of machining defects of new tools.
Modification of existing dies.
Surfacing of machine parts such as cam shafts and toothed wheels.

Hardness: 61 - 63 HRC

CHEMICAL COMPOSITION (%) (Typical values, all weld metal)

C : 0.60	Cr : 3.00 – 5.00	Mo : 0.60 – 0.80	V : 0.60 – 0.80	Co : 5.00 – 7.00
W : 14.00 – 17.00	Fe : Balance			

MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm²	Tensile Strength N/mm²	Elongation 5d (%)	Impact Strength Charpy V notch (ISO-V)

GENERAL INFORMATION

Welding positions	PA, PB, PC		
Shielding gas	NA		
Packing	5 Kg in a plastic box		
Polarity	AC or DC, Reverse polarity (electrode positive)		
Diameter (mm)	2.5	3.2	4.0
Length (mm)	350	350	350
Approx. current (A)	75	105	140

Tips & Tricks

Clean the parts (grinding or filing). Weld with short arc at the lowest possible amps. Electrode to be held at 90° to work piece. Do not weld on red-hot welds. Weld 2 to 3 layers on mild steel.
Preheating may be necessary for pieces with a complicated form sensitive to cracking. Preheat until temperature at least equal to the tempering temperature of the piece which can vary from 200-650 °C (390-1200 °F). For thick layers the application of a base layer with Lastek 8000, 85, 90, 809 or 27 is recommended.
Heat treatment: Annealing: 780-820 °C (1430-1500 °F)
Hardening: 1270-1290 °C (2320-2350 °F), followed by cooling in an oil bath or by air
Tempering: 550-570 °C (1020-1060 °F)